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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/899,597	07/05/2001	Wei Hsin Yao	SEA2655/30874.64USC1	8390

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SEAGATE TECHNOLOGY LLC
INTELLECTUAL PROPERTY DEPARTMENT
920 DISC DRIVE, MS/SV15B1
SCOTTS VALLEY, CA 95066-4544

EXAMINER	
MARKOFF, ALEXANDER	
ART UNIT	PAPER NUMBER
1746	

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/899,597	YAO ET AL.	
	Examiner	Art Unit	
	Alexander Markoff	1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 April 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) *15* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14 and 16-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings were received on 12/09/03. These drawings are accepted.

Claim Rejections - 35 USC § 102

2. The rejection of claims 1, 3-8, 10-12, 16, 18-23 and 25-28 made in the previous Office action under 35 USC 102(b) is maintained.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 2, 9, 13, 14, 17, 24 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 60-219,637 in view of Kuo et al, Baumgart et al and Engelsberg.

JP 60-219,637 teaches a method and apparatus for cleaning and smothering a surface of magnetic disks.

The method comprises directing laser light to irregularities on the surface to melt and reduce them to a predetermined amount.

The document discloses the size of the irregularities prior to and after the process. It means that the step of detecting and means for detecting are disclosed by the document.

As to claims 2, 9, 17 and 24:

The document is silent regarding whether or not the used laser is a pulsed laser.

However, the use of pulsed lasers was conventional for cleaning and surface modification as evidenced by Kuo et al, Baumgart et al and Engelsberg.

It would have been obvious to an ordinary artisan at the time the invention was made to use a pulsed laser in the method and the apparatus of JP 60-219,637 with reasonable expectation of adequate results in order to use conventional and readily available equipment for the disclosed purpose and because secondary references teach benefits of such lasers. See at least columns 2 and 3 of Engelsberg.

As to claims 13, 14 and 29:

JP 60-219,637 also teaches focusing laser on regularities. The used focusing device comprises optical fiber (5) and lens (4).

The document is silent regarding the detailed construction of the focusing device and thereby fails to specifically recite the use of mirrors.

However, the use of mirrors was notoriously well known in the art for directing light beams (including laser light beams) to the desired location. See at least Engelsberg as evidence.

It would have been obvious to an ordinary artisan at the time the invention was made to use mirrors in the method and apparatus of JP 60-219,637 for their conventional purpose with reasonable expectation of adequate results in order to deliver the light from the source to the needed place.

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude"

granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 1-14 and 16-29 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of U.S. Patent No. 6,394,105. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims of the patent disclose means and step for controlling the laser in response to results obtained by analyzing the effect of cleaning. The scope of the term "controlling" comprises continuing cleaning with or without changing the parameters of the cleaning. The continuing of the cleaning is directing the laser beam to remove the contaminants detected.

Response to Arguments

7. Applicant's arguments filed 12/09/03 and 4/05/04 have been fully considered but they are not persuasive.

The applicants amended the claims to remove the term "burnishing".

The applicants again argue that the rejection over JP 60-219,637 is not proper because the document teaches only melting and softening of the

irregularities. According to the applicants this is different from what is required by the claims.

The examiner again disagrees. Whether or not the term "burnishing" is used the specification (at least pages 3 and 4) the process of the invention comprises "burnishing", which is rubbing or polishing the surface by smoothing out irregularities and also includes ablation vaporization and breaking of irregularities into a smaller pieces.

It means that the disclosed by the prior art melting and reducing is the same as "reducing" of the instant application, and that the apparatus of JP 60-219,637 is capable of performing the claimed function.

It is again noted that melting of the irregularities would reduce and "smooth" them and also would break them.

Moreover, it is noted that the claims do not exclude any additional steps or means.

The fact that the prior art teaches an additional steps/means to further smooth the melted irregularities does not change the fact that melting reduces the irregularities.

It is also noted that claim 11 requires burnishing for reduction irregularity.

The applicants allege that the examiner expands the meaning of the used terms.

The examiner disagrees the meaning of the terms was not expanded by the examiner. The meaning of the terms was interpreted according to the specification.

The applicants argue that JP 60-219637 provides only average measurement of irregularities. This is not persuasive because whether or not the applicants correct in their interpretation of the document, the claims are not limited to measuring a single irregularity and do not exclude average measuring. The claims require sensing an irregularity and directing on it the laser. This is disclosed by the prior art.

Moreover, it is noted that the specification teaches the same detecting means as JP 60-219637, it means that the prior art apparatus is fully capable to perform the claimed function and it appears that the applicants are incorrect in their interpretation of the document.

The applicants argue that the double patenting rejection is not proper because, according to them, the examiner has not shown any reason why a person of ordinary skill in the art would conclude that controlling a laser output is an obvious variation of directing a laser on the irregularity.

This is not persuasive because the claims of the patent require inspecting the surface to determining the effect of cleaning and controlling the output of the laser in response. The claims also teach terminating the cleaning when the surface is sufficiently cleaned. This means that cleaning is conducted until the

surface is determined to be cleaned and is conducted if it is determined not being sufficiently cleaned. Thus, when the contaminants (irregularities) are determined the laser cleaning is conducted and laser is directed to the determined contaminant to remove it.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Markoff whose telephone number is 571-272-1304. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571-272-1414. The fax

phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Alexander Markoff
Primary Examiner
Art Unit 1746

am

ALEXANDER MARKOFF
PRIMARY EXAMINER